POLYMERIZATION PROCESS AND CONTROL OF POLYMER COMPOSITION PROPERTIES

ABSTRACT

Methods of controlling the flow index and/or molecular weight split of a polymer composition are disclosed. The method of producing a polymer composition in one embodiment comprises incorporating a high molecular weight polymer into a low molecular weight polymer to form the polymer composition in a single polymerization reactor in the presence of polymerizable monomers, a bimetallic catalyst composition and at least one control agent; wherein the control agent is added in an amount sufficient to control the level of incorporation of the high molecular weight polymer, the level of low molecular weight polymer, or both. Examples of control agents include alcohols, ethers, amines and oxygen.